

The Charleston Harbor Project's
Economic Development Assessment - Phase II

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ASSESSMENT

The Greater Charleston Region is very large and diverse. The economic development agencies in the region reflect this diversity both in number and direction of their economic development strategies. As stated in the Phase I of this study, regional development authorities that promote the competitive advantages of the region devoid of any proprietary interest in a specific community or county have had, and will continue to have, consistently higher levels of success. The following is a snapshot of the current situation regarding economic development efforts in the region as well as a graphic depiction of the relationships between them.

Charleston Regional Development Alliance

A private, non-profit corporation owned by the three Chambers of Commerce in the region (Charleston Metro, Summerville/Dorchester, and Berkeley Chambers). The organization is a relatively new organization officially founded on February 1, 1995. Their mission is threefold:

- 1) Sell the three-county region as a prime location for business,
- 2) Market the region to attract new manufacturing, distribution, large office, and headquarters projects to the region, and
- 3) Act as a project management, facilitator and coordinating organization

for the Charleston tri-county region.

The Charleston Regional Development Alliance is the primary recruitment entity for the region.

County Economic Development Programs

The three counties in the region are Berkeley, Charleston and Dorchester. All three counties have professional economic development personnel on the county staff, dedicated to assisting the regional alliance with project work. Their mission is to support the regional effort as well as to develop a comprehensive site and infrastructure inventory.

City Economic Development

There are 29 municipalities within the three-county region. Most of the municipalities have a professional economic development representative either on staff or with responsibilities to promote economic development within their respective jurisdictions. The five largest cities are Charleston, North Charleston, Mt. Pleasant, Summerville and Goose Creek. Each of these municipalities has appointments to the Regional Development Alliance Board.

Chambers of Commerce

There are three Chambers of Commerce in the region. The Charleston Metro Chamber of Commerce has approximately 2,400 members and a \$4.0 million annual budget. The former regional effort for attracting new and existing businesses to the region for growth was formally a division of the Charleston Metro Chamber known as the Trident Economic Development Authority (which has now been dissolved), the Metro Chamber has formed a new business development division to focus on the existing industry development and small business development in the Metro areas of the three-county region. Also, the other chambers focus on existing businesses to address ways to improve the business climate and foster improved business retention.

Council of Governments

The Council of Governments (COG) is the regional planning agency for the three county region. The COG is funded by the counties and municipalities and serves as the primary source for community data.

Charleston Naval Complex Redevelopment Authority

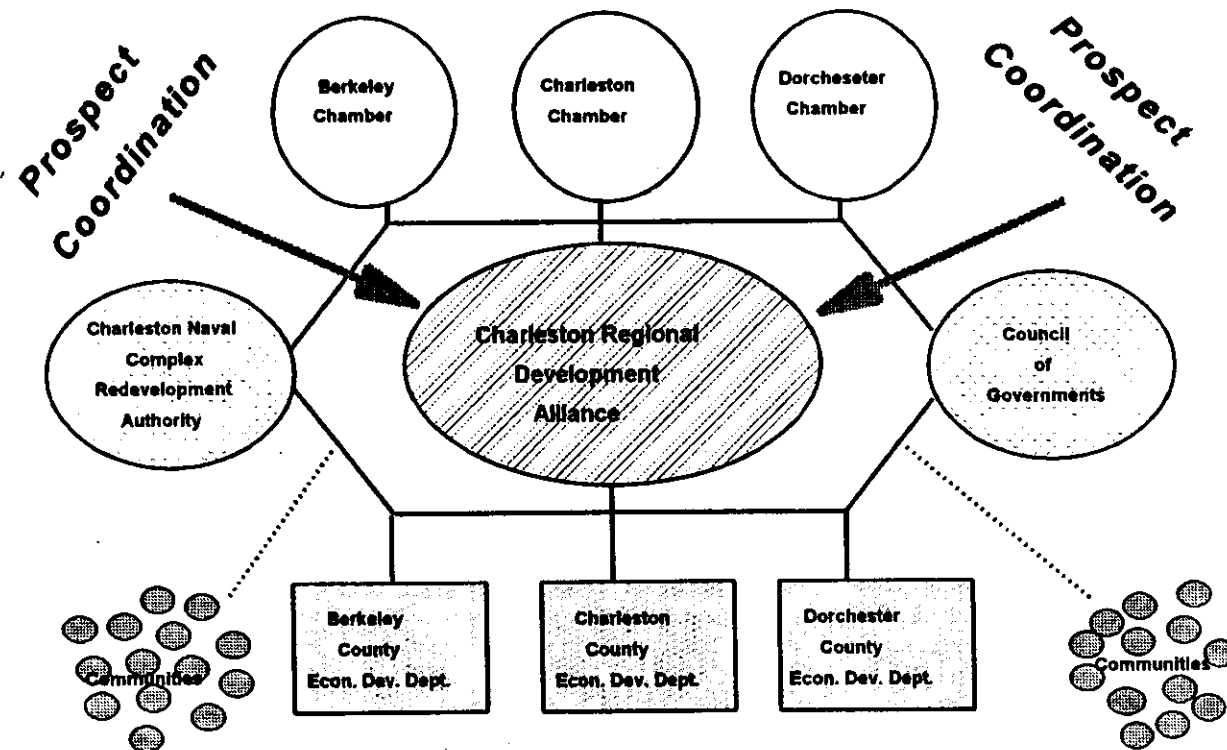
The authority is an outgrowth of the B.E.S.T. (Building Economic Solutions

Together) Committee that was the original planning entity responsible for making recommendations for reuse of the Naval Complex and placement of Naval Complex workers. The authority is the implementation entity of these recommendations and consists of 12 appointed members: 5 from the City of North Charleston; one each from the City of Charleston, Berkeley County, and Dorchester County; one House appointment, one senate appointment; and a chairman appointed by the Governor. Task forces include Personal Property, Environmental and McKinney Act/Community Use. Committees include Finance/Procurement, Personnel/Consultant, Property Management and Construction. The role of the Redevelopment Authority is to focus specifically on the reuse of the Naval Complex and it has the legal power to receive, lease and sell property as well as borrow money for the redevelopment efforts.

The graphic titled "Economic Development Infrastructure (Figure 1) is a representation the intended structure and interaction between the various development agencies. There are two significant features that are depicted in this chart. The first is the position of the Charleston Regional Development Alliance. It is not only a center point for the coordination of efforts between the various development agencies, it is also the focal point whereby all recruitment efforts flow. It is our opinion that this is a prudent and strategic insight that is proper and effective

Figure 1 - Economic Development Infrastructure

ECONOMIC DEVELOPMENT INFRASTRUCTURE



- provided the economic development agencies adhere to the intent and purpose of the regional alliance. The second important feature of the graphic illustration is the creation of the Charleston Naval Complex Redevelopment Authority. According to its stated charter, the authority is not only responsible for the utilization of current and future base assets, it is also a partner with the Charleston Regional Development Alliance - a very noteworthy and potentially highly effective synergistic relationship.

Employment

The same concerns that were expressed in the Phase I study are still evident and will continue to be a challenge for the region. As Table 1 illustrates, the Charleston Naval Base and Charleston Air Force Base employ approximately 30,000 people. When the Naval Complex closes in 1996, there will be significant impacts on the community that will provide both opportunities for economic development as well as cause for concern.

The opportunities that will be evident pertain to unemployment and to the large number of skilled workers. The unique opportunity for Charleston is that not only will there be a large number of workers, there will be a large number of highly skilled workers that will require little if any training in their respective fields. In

Table 1- Major Employers in Charleston Metropolitan Area

#	Employer	Product/Service	Employees
1.	Charleston Naval Yard	US Navy	23,600
2.	Medical University of South Carolina	Healthcare/Research	7,430
3.	Charleston Air Force Base	US Air Force	5,918
4.	Charleston County School District	Public Education	5,148
5.	Berkeley County School District	Public Education	3,055
6.	Roper Hospital	Health Care	2,200
7.	Westvaco Corporation	Lumber, Paper	2,039
8.	U.S. Postal Service	Postal Service	1,965
9.	Piggly Wiggly Carolina Company, Inc.	Groceries & Headquarters	1,800
9.	Santee Cooper Public Service Auth.	Power Utility	1,800
10.	Trident Regional Systems	Healthcare	1,600

addition, there is an abundance of underemployed personnel who can fill the ranks of the semi-skilled workers traditionally required to support skilled trades.

Economy

Examination of Table 2 shows where most of the employment in manufacturing is centered. Lumber and Wood Products, Printing & Publishing, Chemicals\Rubber & Plastics, Transportation Equipment and Port Related Shipbuilding\Repair comprise over 60.0% of the manufacturing base. This concentration of employment in only a few select industries exposes Charleston to the typical swings in business cycles, and also acts as a deterrent to industrial diversification.

The primary employment generators in the region have historically been the federal government and tourism.. Unfortunately, the presence of federal government related jobs and pending job losses associated with the base closing will dramatically affect the economic health and well being of the Charleston economy. There is little that can be done to counter these effects except to understand the following opportunities:

- 1) Job losses are inevitable and cannot be changed.
- 2) The characteristics of the Charleston region are not so extraordinarily

Table 2 - Major Employment Categories & Percentages

SIC Code	Description	Percent
2000	Food & Kindred Products	2.29%
2010	Meat Products	0.11%
2200	Textile Mill Products	2.97%
2300	Apparel & Other Textile Products	2.68%
2390	Misc. Fabricated Textile Products	1.59%
2400	Lumber & Wood Products	8.44%
2420	Sawmills & Planing Mills	2.62%
2421	Sawmills & Planing Mills, General	0.44%
2430	Millwork, Plywood & Structural Members	0.71%
2490	Misc. Wood Products	0.45%
2700	Printing & Publishing	6.66%
2710	Newspapers	0.27%
2720	Periodicals	0.25%
2740	Misc. Publishing	1.31%
2750	Commercial Printing	3.44%
2752	Commercial Printing, Lithographic	1.53%
2759	Commercial Printing, NEC	0.98%
2800	Chemicals & Allied Products	11.17%
2860	Industrial Organic Chemicals	4.56%
3000	Rubber & Misc. Plastics	7.46%

SIC Code	Description	Percent
3089	Plastic Products, NEC	0.38%
3200	Stone, Clay & Glass Products	2.58%
3270	Concrete, Gypsum, and Plaster Products	1.86%
3273	Ready-mix Concrete	0.79%
3400	Fabricated Metal Products	2.51%
3440	Fabricated Structural Metal Products	0.63%
3441	Fabricated Structural Metal	0.24%
3444	Sheet Metal Work	0.34%
3470	Metal Services, NEC	0.11%
3500	Industrial Machinery & Equipment	4.09%
3590	Industrial Machinery, NEC	1.06%
3600	Electronic & Other Electronic Equip.	0.19%
3700	Transportation Equipment	15.79%
3730	Ship and Boat Building & Repairing	0.16%
3731	Ship Building & Repair	4.04%
3732	Boat Building & Repair	0.16%
3800	Instruments & Related Products	0.72%
3900	Misc. Manufacturing Industries	1.48%
3990	Misc. Manufacturers	1.40%
399\	Manufacturing Industries, NEC	1.53%

different from those of its regional and national competitors that would significantly act as a catalyst to provide an accelerated influx of industrial prospects.

- 3) The current wage structure of federal government employees and associated military personnel are significantly higher than those of the tourism industry. The ability to retain these high paying jobs will be difficult.
- 4) The lack of economic diversity of the economy is the primary cause of the current dilemma.

In summary, the only positive step that can be taken is 1) absolute acceptance that there will be a down turn in the local economy due to major job losses, and 2) changing the structure of the economy to a more diverse, while not an immediate fix, is the only assurance that this will not happen again.

Figure 1, while only a graphic, illustrates what has been advocated as the ideal interaction between the various economic development entities in the region. It does not describe what may actually take place. In order for successful economic development to occur, there must be cooperation and a common goal.

Figures 2 - 5 show the location of various industries by SIC Classification groupings (reference Table 2). The objective of this study is not to determine

Figure 2 - Location of Industry by SIC Code

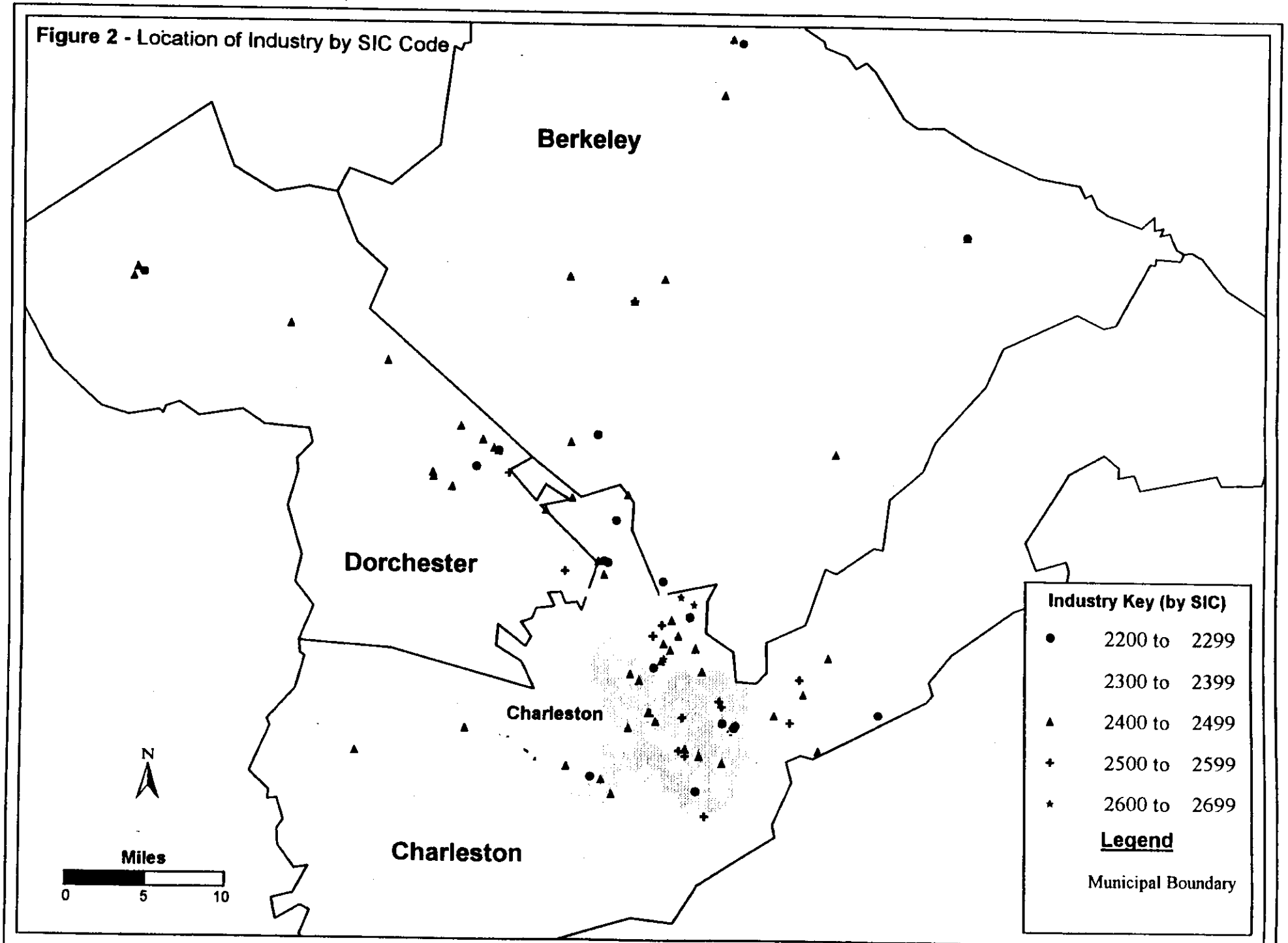


Figure 3 - Location of Industry by SIC Code

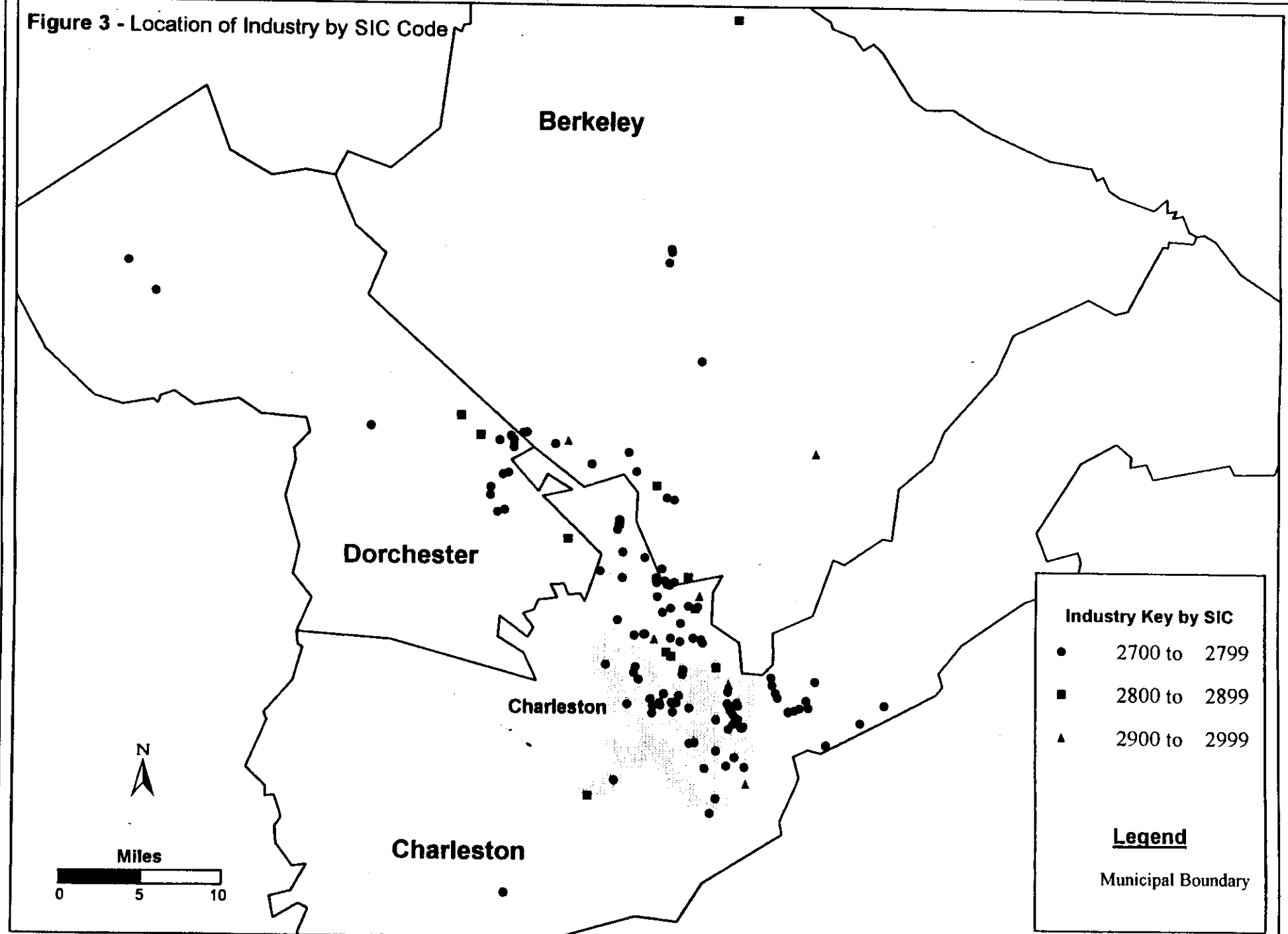


Figure 4 - Location of Industry by SIC Code

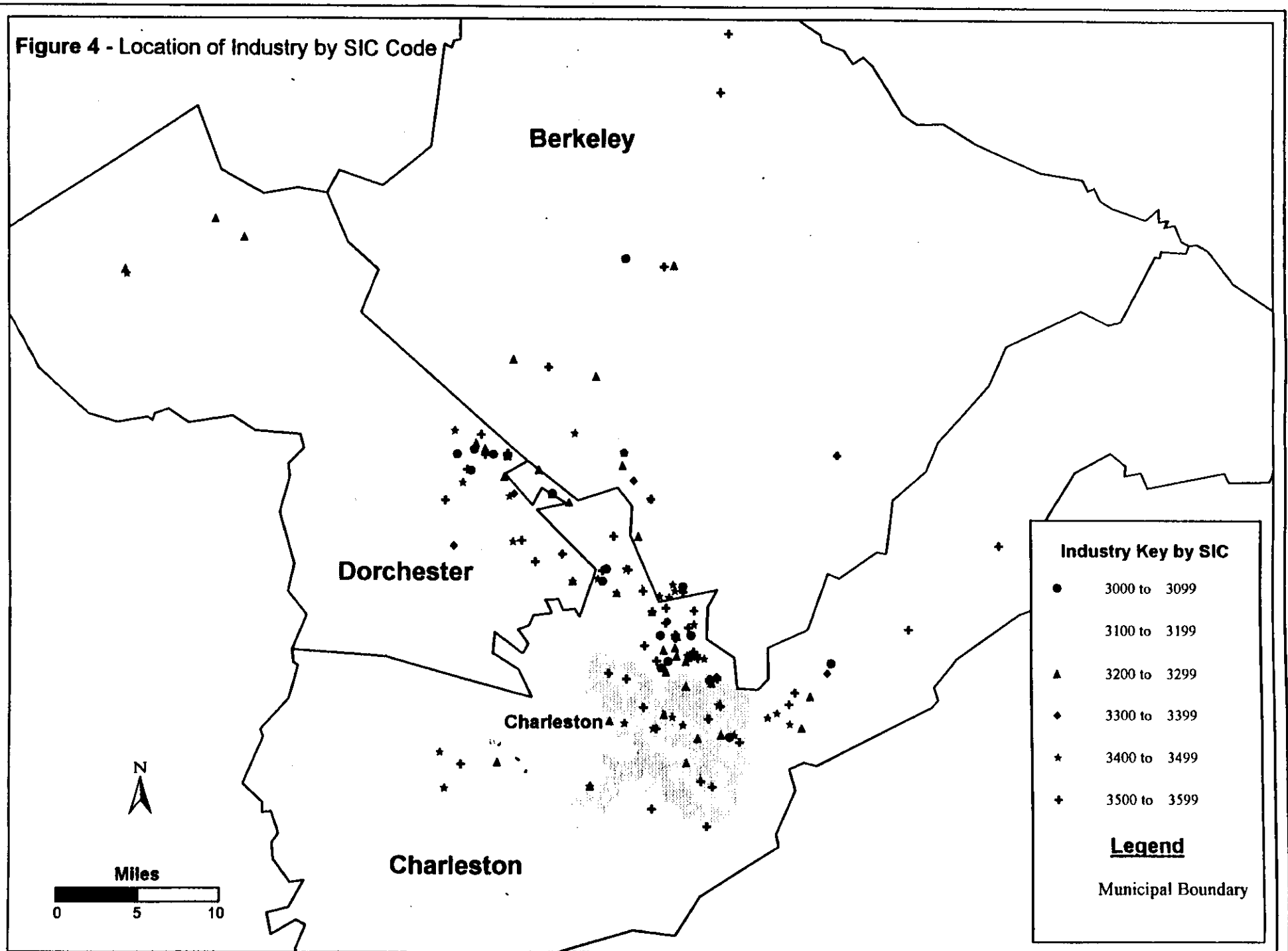
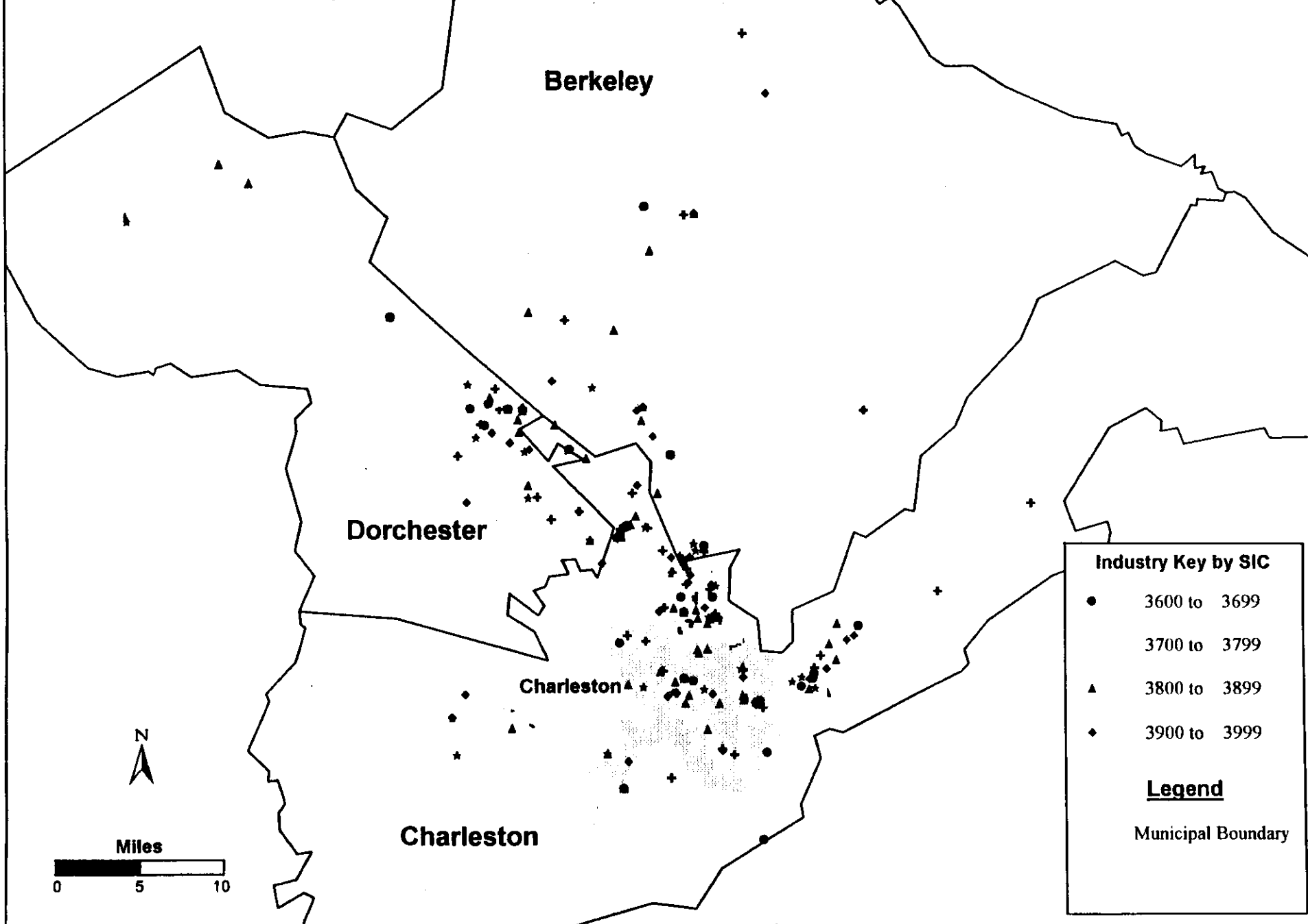


Figure 5 - Location of Industry by SIC Code



which county has more of a proprietary and/or fiduciary role to other counties to assure mutual success. As these illustrations show, the majority of industry is located in Charleston County. However, there is still a significant percentage of industries located in both Dorchester and Berkeley. All three counties have some degree of responsibility for the success of their neighboring counties by default. As a result, the cooperative spirit between these counties is a must. It is necessary for all economic development agencies to work together in the spirit of friendly, yet cooperative, competition. Industrial prospects can sense when there is a lack of cohesiveness among local government agencies, regardless of efforts to convince them to the contrary. Once this impression has been made, there is little if anything that can be done to counter this perception.

Status of Base Closure

In September 1993, the Base Realignment and Closure (BRAC) Commission decided to close portions of the Charleston Naval Base. These portions were the naval station, the shipyard and industrial supply center. Since this time, there have been significant structural changes not only in the organizations responsible for implementation of a the base reuse program but also the manner with which the

implementation process will be carried out.

With regard to these changes, the creation of the Trident Regional Development Alliance is in sync with the typical sequence of activities related to base closing. As illustrated in the previous graphic, the Trident Regional Development Alliance has been formed to act as a facilitator and a coordinator for economic development activities in the region. Furthermore, examination of the next illustration titled "*Base Closure Process*" shows that the Regional Alliance was formed a short time prior to the Naval Complex Redevelopment Authority. The Naval Complex Redevelopment Authority replaced the B.E.S.T. Committee to act as the implementation group for the plans and recommendations proposed by the committee. In terms of the administrative and organizational steps necessary to redevelop the Charleston Naval Base, these appear to be on time.

The Remediation Plan for the Environmental Cleanup of the Charleston Naval Base; however, is not scheduled for completion until 1999. It has been inferred that the length of remediation will be dependent on the technology selected, additional sampling and final recommendations from the United States Navy. The lack of an accelerated program to fast-track this process can seriously undermine the marketing efforts of both the Charleston Regional Alliance and the Charleston Complex Redevelopment Authority.

Prioritization

The prioritization of economic development activities should be viewed from three perspectives. First, the unique opportunities and challenges that are present as a result of the **base closing**. These are primarily centered around available manpower and excess property/facilities. Second, the inherent **strengths** of the Greater Charleston Region as a whole should not be overlooked with undue focus on replacement jobs as a result of the base closing. As a gateway for exports to other parts of the world, a moderately favorable business climate, and relatively inexpensive utilities, Charleston can effectively compete based on these merits alone. Finally, the future economic framework, or **vision**, for the region can be influenced permanently by the industrial targets that the Regional Development Alliance and Local Partners elect to pursue. It is the opinion of the consultant that the economic development priorities should be based on the latter two elements (strengths and vision) with the base closing as simply another impetus and asset to help facilitate these two activities:

Base Closing

The base closing has acted as a catalyst to unify community action and focus

direction on the immediate result of significant job losses. Unfortunately, there is little that can be done to forestall the significant short term loss of jobs and the resulting economic impact. *There is the potential for utilization of various military assets including land, infrastructure and buildings; however, these assets in and of themselves very rarely, if ever, are considered important factors to support a company relocation.* Instead, the inherent strengths and weaknesses of a community are considered first and foremost. If these make sense to an industry from both an economic and business standpoint then the community will be considered - if not, then it won't.

Probably the greatest potential that these assets hold for the Greater Charleston region is the ability to provide particular manufacturing, trade and/or business services that help support the economic development objectives of the region. For instance, the location of a company involved in machinery assembly and export with 100 jobs would have less of a long term impact than that of a major transportation forwarding company headquarters that imports and exports on a global basis. While the former (machinery company) would have an immediate impact, the long term consequences would probably be minor. In contrast, a headquarters location that builds upon the existing strengths of the region, while relatively few in jobs, adds tremendous benefit to other companies that utilize this

service. These type of prospects should be identified and actively pursued.

In short, the current charter of the Regional Development Alliance is on target. To provide assistance to the Charleston Naval Complex Redevelopment Authority where necessary and pursue the utilization of the current/former military assets are both equally important.

Strengths

The strengths of the Charleston region are abundant. The port facilities are among the best in North America and are a gateway to imports and exports. The Medical University of South Carolina is the oldest medical university in the south and has leadership committed to assisting with economic development efforts and anxious to recruit medical related, pharmaceutical and biotech industries. Energy costs in the region are some of the cheapest in North America. A community that has been shocked into coalescence and unity by the dire consequences imposed by the base closing and a state government that recognizes its own role to help alleviate this problem. And finally, the Quality of Life has a unique appeal for those attracted to the culture, natural environment and lifestyle of the region. These are significant strengths that are sometimes overlooked and undervalued by prospects.

Vision

The question has been asked, *"What can we do to replace the loss of jobs because of the base closing?"* Instead, the question should be, *"How can we as community leaders make sure that this situation never again raises its ugly head to wreck the local/regional economy."* Pursuit of low-paying, low skilled jobs will only serve to exacerbate the existing problem and assure that future generations will have no choice but to migrate out of the region to attain an adequate standard of living.

Landing a large employer that can contribute little to the long-term future growth of the region may be politically expedient and popular; however, it is short-sighted and self-defeating.

The Base Closure is an event that "in retrospect" could probably not have been foreseen nor avoided. It is the impetus that has caused significant changes in the way local development efforts are being viewed and will hopefully continue to drive these to the forefront. Furthermore, there are significant strengths in the tri-county region that should not be undervalued nor ignored. A cooperative effort among all municipal, county and city government and economic development agencies is a must to successfully recruit industry into the region. Finally, there is the need to determine what the face of the economy will look like in future years.

It is easy to capture industry that is locating in a particular region because that is the cheapest place to do business. In contrast, it is extremely difficult to demonstrate to a company why they should locate in your community because of factors that are difficult to measure, and even more so to demonstrate such elements as: positive business climate, community leadership and commitment, etc..

CONCORDANCE - THE CHARLESTON HARBOR PROJECT

The overall objective of this study is to integrate the goals and objectives of the Charleston Harbor Project into an economic development and target industry recruitment strategy. Phase I and Phase II have attempted to discuss the industrial recruitment process, evaluate the strengths and weaknesses of the Charleston region, assess the probability of success for economic development opportunities that exist and finally to discuss how the Charleston Harbor Project can help to facilitate this process. The primary objective of the Charleston Harbor Project (See *also attached Appendix*) is to accomplish the following:

1. To maintain and enhance the quality of the environment in the Charleston Harbor estuary system.
2. To maintain the range of uses of waters and natural resources of the Charleston Harbor estuary system.
3. To anticipate and address potential problems before adverse impacts occur.

These three primary objectives are supported by several secondary objectives which include storm water/non-point source, biological resources, point sources, dredge, land use, public utilization and data management.

As the primary objectives above indicate, preservation of the natural

resources and maintenance of the quality of the environment for the Charleston Harbor region are supported by an approach to anticipate and address potential problems before they occur. There is no doubt that the environment is affected by industrial development. Furthermore there is no doubt that legislative mandates, both present and pending, can enforce compliance by industry and municipalities to prevent or halt adverse environmental impacts. The primary question that must be asked is: "Is enforcement of statutory regulations enough to obtain the goals and objectives set forth by the Charleston Harbor Project, or is it necessary to take a partnership approach to show the overall benefit to the community and industry by exceeding more than just the minimum regulatory limits."

If history has demonstrated anything, it is that *industries, as well as communities, are driven by motives to maximize their benefit.* The theory of basic economic principles has been proved to be true countless times. These benefits, which are many times in the form of monetary gain, includes other benefits that are intangible such as goodwill, community recognition, approval, etc.. In addition, the platitude that says "*water follows the path of least resistance*" is another factor that may seem simplistic, yet is nevertheless true. If it is easy to do it will most likely be performed and performed correctly. In contrast, if it is difficult, it only increases the chances that it will not be performed - or if performed probably performed

incorrectly. In short, the questions posed previously, based on the logic presented in the last two paragraphs, would indicate that the most logical course of action would be for the Charleston Harbor Project to embark on a program that is not viewed as just another set of complicated environmental nuisance regulations, but rather an opportunity for surrounding industries and communities to make a real difference in the quality of the environment. At the same time, it is incumbent upon the Charleston Harbor Project to demonstrate that accomplishing the goals as set out by the Charleston Harbor Project will do much to enhance the long term economic health of the community as well as its quality of life. This is no a simple task to undertake; nevertheless, the following suggestions should be considered possible action items:

1. ***The Charleston Harbor Project team should enlist the support of all the surrounding regulatory agencies to discuss how they can become advocates and promote economic development.*** The first step would be to take a hard look at themselves to first see in what ways permitting, reviews and opinions can be streamlined. This must be an earnest critical self examination and report these findings to the various local economic development agencies. In addition, the process should involve their input and support.

2. ***Devise a plan where any regulatory issues that are imposed on new or existing industries that require applications, approvals, modeling, etc.. are performed faster in Charleston, SC than anywhere in the United States.*** This will require research, flowcharting, planning and collaboration with state and local officials. Pre-permitted sites is an example of one solution that has been conducted in Savannah, GA and has had considerable success.
3. ***Provide a permanent liaison that works with local economic development agencies and industry.*** The purpose would be to make sure that whenever assistance is required it is performed expeditiously and decisively. There is nothing more frustrating than trying to apply for a permit or comply with a regulation in earnest and having to continually provide additional information. Avoid having the permitting\compliance process resembling a moving target.
4. ***Become part of the economic development process by being proactive.*** Being proactive means offering assistance when non is asked, educating and informing others in a non-threatening or condescending manner and providing solutions instead of expecting others to (Figure 6).

5. ***Provide in-house training to CHP employees and cooperating agencies on how to be outward\client-focused instead of inward\administrative-focused.*** These skills are not intuitively obvious to everyone whether in the private or public sector.

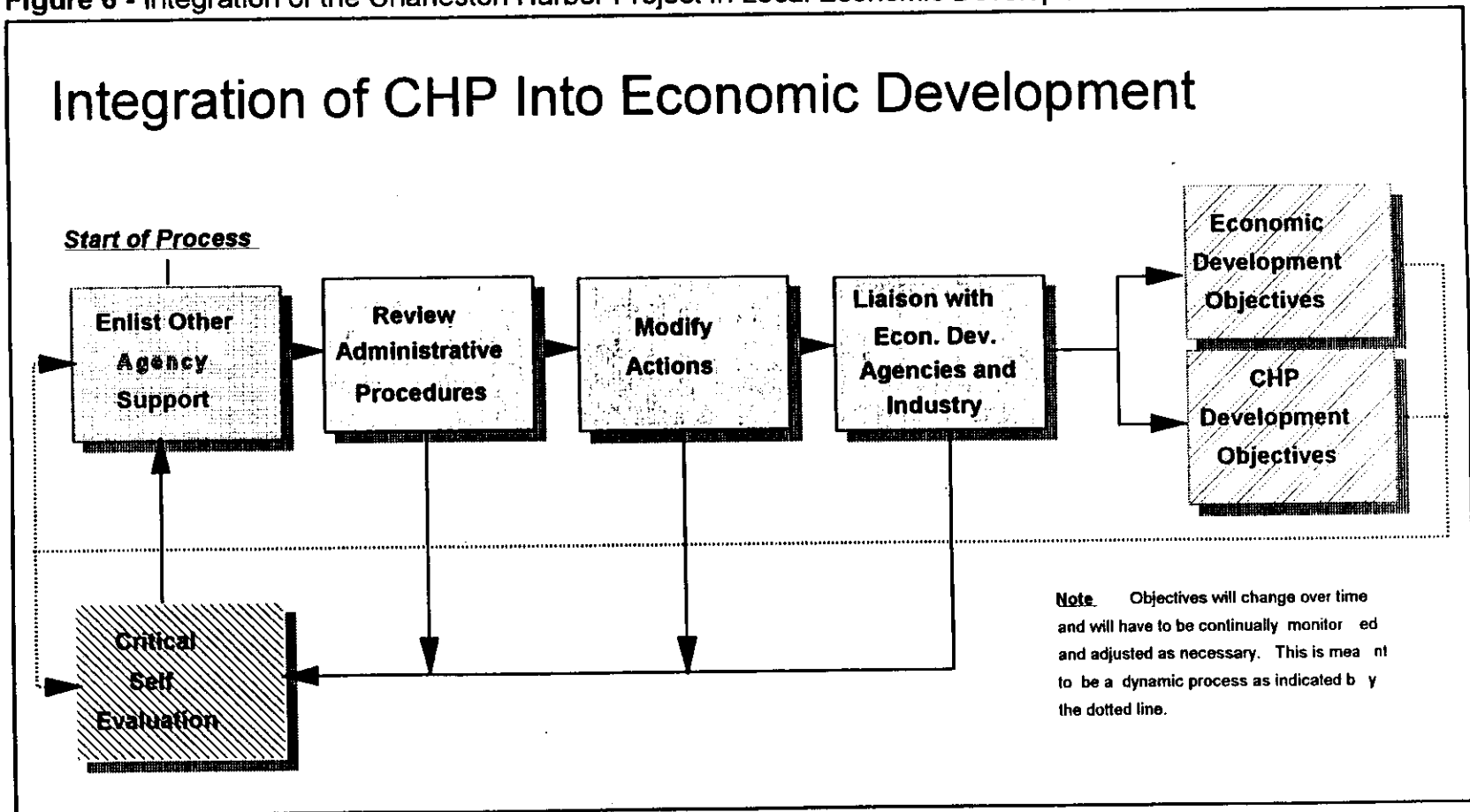
Notice that none of the guidelines above suggest in any way that there should be special considerations, bending of rules or non-enforcement of regulations. In fact, this should never be inferred in any way. What the guidelines suggest is that the Charleston Harbor Project portray the image of an organization that wants industry and other agencies be viewed as responsible corporate citizens by making regulatory compliance as painless and easy as possible. As Phase I noted, most industries want to comply and even exceed standing regulations intentionally in many instances. It is the minority that tries to beat the system. Furthermore, once local industry and development agencies realize that they all have a stake in improving the quality of life and the environment and have an agency who is committed to helping them achieve this, compliance issues will be self policing to some extent.

Too often economic development officials as well as state and local environmental regulatory officials are at odds with each other. It is not unusual to see adversarial relationships continue to thwart the efforts of each. Those

communities and states that have bridged the gap of misunderstanding find that both organizations are ultimately successful. Those that don't ultimately fail.

The Charleston region is unique. The habitat, culture, environment, quality of life, and history is like no other place in the South. It can be argued that Charleston is just another attractive city that is like many other cities offering similar or better location characteristics. Nothing could be further from the truth. Preservation of these features is critical to the economic future of the entire region and can only be accomplished by agencies, governments and industry all working toward a common goal. The Charleston Harbor Project will not be successful if it attempts to act in a vacuum. Furthermore, the future economic viability of the region hinges to a large degree on resolving many of the environmental challenges such as assimilative capacities of surrounding waterways, diminishment of significant habitat, etc.. Solutions to these problems will require shared leadership from all participants and creative thinking to share the responsibilities equally.

Figure 6 - Integration of the Charleston Harbor Project in Local Economic Development Initiatives



STANDARD INDUSTRIAL CLASSIFICATION (SIC) TARGET INDUSTRY IDENTIFICATION

An evaluation of Phase I indicated that the fastest growing industries in 1994 were machine tools (SIC 3541), electronic components and accessories (SIC 367), surgical and medical instruments & appliances (SIC 3841 & 42), mobile Homes (SIC 2451), automotive parts and accessories (371), Lighting fixtures (364) and analytic instruments (SIC 3826). Certainly these should be part of the target industries for the region by virtue of their projected growth in the United States. Particular emphasis should be placed on the surgical medical instrument & appliances. In addition, other industries should be included as follows and are presented as groupings as opposed to discrete standard industrial classifications:

Medical and Related Industries

The Medical University of South Carolina at Charleston should be the driving force to act as the catalyst to recruit industries in the medical and medical related industry. Probably the best example or parallel for Charleston to model is that of Birmingham, Alabama and the University of Alabama-Birmingham. Like Charleston, the Birmingham region was a regional medical center with a university eager to develop research and development capabilities not only for academic excellence but

for industry collaboration. There was no critical mass of either; therefore, the university recruited top flight medical professionals to help develop the necessary programs with a 10 year vision. To date, UAB is one of the nation's leaders in sports medicine, heart research and other areas of medicine. In addition, UAB and the community have taken a proactive and extremely cooperative approach to jointly recruit, and in some cases create (i.e., IPO with Biocryst, Inc.), industrial development. In short, their approach to develop this industry was to build the foundations which attract or act as the impetus to home-growing these industries first. These foundations include research, clinical trials, product development and others. Once this was complete, then industrial recruitment was undertaken in earnest.

It should also be understood that the recruitment of a prize company in this field can do a tremendous amount to accelerate or even create a whole range of medical and medical related services. A prime example is that of Medtronic located in Minneapolis, MN. Their development of heart pacemaker and related technology created an entire industry of support services and other medical device spinoffs. In order to be successful; however, required the collaboration and cooperation of the University of Minnesota.

Pharmaceutical Related Industries

Pharmaceutical companies can generally be characterized in two ways: 1) those companies that manufacture specialty drugs with extremely high technology manufacturing processes, and 2) those companies that produce somewhat commodity type drugs and/or fine chemicals that are mass produced in large volumes. The needs for each are at opposite ends of the spectrum some of which Charleston can accommodate, others of which will be very difficult to support.

Specialty drugs typically require the assistance and/or collaboration of a local university or other companies that have the necessary support services to accommodate research and development and certain manufacturing processes. More importantly, these types of industries require a special set of skills that can only be found in certain traditional hi-tech biotechnology corridors. For the Charleston region, providing this type of assistance can only come from the university since there is not an established biotech/pharmaceutical presence in the region. Nevertheless, it is still worthy of consideration.

In contrast, there is the opportunity to recruit pharmaceutical/fine chemical manufacturing where the nature of the manufacturing process is amenable to low cost operating characteristics. The recent events of Nucor Steel, which was driven primarily by low cost electricity, is a testament to this fact. Berkeley Cooperative

Electric Company can play a major role in this effort.

An emerging trend for both specialty drugs, pharmaceuticals and commodity drugs is the start of contract research and manufacturing services for established products. This probably offers the greatest potential to **quickly develop** this industry over any other alternative. Having the ability to perform research, clinical trials and ultimately production is a service that will draw industry into the region. The economies this offers to new startups is tremendous.

Motor Vehicle Parts\Components

As stated in Phase I of this study, motor vehicle parts and components are a projected growth industry for the U.S. economy. This is because of the continued growth of the U.S. and North American markets as well as the increasing costs of production in other western economies such as Japan, Germany, etc.. As a result, these "transplants" will continue to locate in areas where production costs are lower yet still maintain high rates of productivity and quality.

The recent siting and construction of the BMW automotive assembly plant has had a tremendous impact on the upstate region of South Carolina. Similarly, the recent siting of the Mercedes Benz automotive manufacturing facility in Vance, Alabama shows a trend for automotive sitings in the Southeast. Furthermore, there

are indications that other manufacturing facilities for both automotive and truck assembly plants will be occurring in the near future and will most likely continue to focus on the Southeastern region of the country.

The characteristics of both the Mercedes Benz and BMW plants are similar. Both plants are designed to serve the North American market as well as exports back to their traditional European markets. The same opportunity to recruit and capture other "transplants" exists for the greater Charleston region, especially those companies that use import and export.

At present, both Mercedes and BMW import power train components and it appears that this trend will continue in the near future. It is only a matter of time, however, before both companies decide to either move power train manufacturing operations or outsource components to other manufacturers. It is our opinion that the former scenario (production relocation) is the most likely. The development of this industry is dependent on the availability of adequate support services such as metal working, machining, metallurgical testing, etc.. As a result, the automotive industry as a target market must out of necessity realize the importance of these industries.

It should be noted that Caterpillar located in Greenville, SC to manufacture and assemble diesel engines without the benefit of this inherent skill base or wide

range of support services. Through the utilization of team-based units and the state's Special Skills Training Program, this plant has exceeded every expectation to date. In short, the opportunity is enhanced, but not necessarily dependent on these factors. In addition, the ownership of the shortline railroad that services the Port of Charleston offers transportation cost advantages that are unparalleled in the U.S.

Metalworking and Industrial Machinery

As stated in the Phase I of this study, both metal working and machinery manufacturing are growth industries from a national perspective. Charleston is very competitive for both of these industries. In fact, few communities can compete in one distinct aspect. The rationale for this is as follows:

The future competitive position of many American manufacturing firms is not necessarily the cost with which machinery can be produced, (although this can be an important consideration) but rather the speed and degree of specialization\customization with which it can be manufactured, assembled, modified and tested to meet the project requirements for foreign investment into emerging economies.

The demand for hi-tech equipment in third-world economies that have pent

up demand for the production of consumer products is staggering. As a result, the need for basic manufacturing components, equipment and machinery is tremendous. This demand, however, is tempered by the characteristics of the host country/economy and the appetite for investment into these markets. The reasons for this are twofold : 1) the financial risk of potential investors is broken down into the lowest amount of capital possible, and 2) the regional nature of production and consumer markets does not allow for massive intra-regional\county distribution and marketing.

As a result, machinery and equipment must be manufactured and assembled in smaller units, yet be fully tested and capable of production on location very quickly and in a modular fashion. Hence, the opportunity for Charleston is to provide a staging area for manufacturing companies to accomplish this task. This has yet to be created anywhere in the United States.

A hi-tech foreign trade zone that utilizes the economies associated with special tax concessions and duties incorporated into a framework that capitalizes on the development of feeder industries into the zone is an opportunity unparalleled in the world. Instead, this concept has been utilized only to take advantage of low cost labor or assembly operations. The impetus for this concept is to have the reverse of a tradition "maquiladora" where low production costs is the objective.

Instead, high value added with the ability to package, ship and deliver anywhere in the world in record time would be the objective.

Chemicals and Plastics

Chemicals and plastics generally locate near the source of the raw materials. This means that a location that performs primary processing or refining or an area where the bulk commodity can be transported, stored and distributed efficiently and economically is highly desirable. As stated throughout the report, the Port of Charleston is one of the nation's premier port facilities that can accommodate all these needs. In addition, these companies are typically large utility consumers of power, water, and sewer. The attributes that are necessary to attract these industries are all present with the possible exception of sufficient wastewater treatment capacity. The question which remains for the community to answer collectively is whether these industries are desirable from a long development perspective and what effect will they have on the future desirability of the region for other industries. The purpose of this report is to identify target industries that have a high potential for successful recruitment. There are several different stages of manufacturing for this industry and the Charleston region should not ignore the potential for downstream industries.

out in Phase I that most major employment is not the result of local entrepreneurialship or new startups. Instead, there is conclusive evidence that new job growth and employment is primarily affected by large industrial expansions and relocations. The Charleston region cannot afford to ignore small business because it is quite possible that there is a mega-company in the making with every new business startup. The environment must be present to promote and encourage these developments.

One of the necessary ingredients to foster this kind of environment is a healthy economy. A healthy economy depends on jobs. *As a result, the state and the community must target several large industries that will be expanding and or relocating and do not simply compete against other communities but make sure that they win.* This spirit was manifested in the successful BMW recruitment and must be reincarnated again with every potential project in Charleston. It is necessary for the community to understand unequivocally that landing large projects will require an extremely close working relationship with the state. In short, it is incumbent upon the community to take the initiative to make the Charleston region an easy place to recruit industry for the state instead of the other way around. The foregoing industries are opportunities where the Charleston region can excel.

APPENDICES

Charleston Harbors Project

Measurable Objective Workshop

September 21 & 22, 1993

EXECUTIVE SUMMARY

This report is a summary of a workshop held on September 21 & 22, 1993 at the University of Charleston, Charleston, South Carolina. The Charleston Harbor Project (CHP) staff organized and sponsored this workshop to initiate the process of building a consensus on measurable objectives for the Special Area Management Plan (SAMP) to be developed by the Charleston Harbor Project. Measurable objectives were to be developed in such a way that progress toward the CHP goals could be documented.

The meeting was arranged to provide participants an overlay of the goals of the CHP, and the progress and studies sponsored by the CHP. Then, in order to focus discussion, CHP staff presented workshop participants with drafts of measurable objectives that served as springboards for discussion.

Draft measurable objectives were recommended for several resources of

concern and secondary CHP goals. Nine draft measurable objectives were recommended with relationship to juvenile finfish, shellfish, direct recreational contact, wading birds, threatened and endangered birds, finfish, wetland habitat, sediment and threatened and endangered species.

Indicators for all of the measurable objectives were not established. Monitoring plans for each of the resources of concern or habitat of concern were discussed but no specific action items were established. Likewise, levels of concern (part of the definition of a measurable objective) were not established for each of the resources of concern. There was a consensus that, at a minimum, one more workshop should be held to refine the objectives already established and develop measurable objectives for those resources or goals without them.

INTRODUCTION

The Charleston Harbor Project (CHP) was established to develop a Special Area Management Plan (SAMP) for the greater Charleston Harbor area. The program is being conducted by SCDHEC/OCRM. The objective of the CHP is to develop and implement growth management guidelines that will protect the rich natural and cultural resources of the area and will also strengthen the area's diverse

economic resources.

The CHP staff invited research scientists, regulatory and policy agencies, planners, local government officials, utility managers and industrial facility managers to attend a two day workshop on developing measurable objectives for the SAMP. This range of attendees was intended to represent groups which would be involved in developing SAMP, those who would implement the plan and those who would be directly impacted by implementation of the final plan.

The charge to the participants was to reach consensus on the issues that should be addressed in a Special Area Management Plan for the Charleston Harbor Project and to identify the priorities for those items identified.

Consensus was reached in several resource areas and with regard to certain of the secondary CHP goals. The resulting measurable objectives in most cases provided a framework for additional discussion and refinement. Indicators and monitoring plans for determining performance of the SAMP were discussed, but no consensus was reached.

This summary is intended to be a discussion document which brings attention to the progress made to date in defining the elements of the Special Area Management Plan. Likewise, it points to areas which require further exploration, definition and refinement..

To facilitate an understanding of the discussions and the major components of the CHP, the following glossary was developed. In addition, the primary and secondary goals of the CHP are restated and lend assistance in interpreting the Tables in the summary Findings section.

GLOSSARY

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| Management Actions - | Individual actions which are directed at lessening the impact of man's activities on the environment, e.g. Construction of a detention pond. |
| Action Plans - | Collective strategy developed through public input which directs a governing body, regulatory agency or the general public to undertake specific activities to lessen man's impact on the environment. e.g. Develop and implement storm water management strategy for a watershed. |
| Measurable Objective - | A desired environmental endpoint that is stated in terms of an environmental indicator which can be objectively |

measured to determine whether the objective is achieved.

- Primary Goal - One of three overarching objectives to focus the activities of the Charleston Harbor Project.
- Resource of Concern - An environmental resource of public concern, the well being of which motivates preservation or restoration efforts.
- Secondary Goal - A series of management actions or environmental end points grouped by major categories: Storm Water/Nonpoint Source. Biological Resources, and Point Source.
- Special Area Mgt. Plan - Specific Management strategies for protecting resources of concern balanced with continued use of the various resources in the watershed.

CHARLESTON HARBOR PROJECT GOALS

Primary Goals

1. To maintain and enhance the quality of the environment in the Charleston Harbor estuary system.
2. To maintain the range of uses of waters and natural resources of the Charleston Harbor estuary system.
3. To anticipate and address potential problems before adverse impacts occur.

Secondary Goals

Storm Water/Non Point Source

1. To identify specific storm water problems that presently exist in the Charleston Harbor Drainage Basin.
2. To modify, where necessary, and integrate all existing water quality monitoring programs into a basin-wide monitoring system.
3. To develop management programs to reduce/minimize storm water/nopoint problems.
4. To protect and reopen shellfish grounds.

Biological Resources

1. To identify, locate and characterize important species and habitats in the Charleston Harbor Drainage Basin.
2. To identify historic and recent losses of important habitats and populations of important species.
3. To identify and utilize practical and successful methods of restoring or replacing habitat losses, where necessary, for the recovery of important species and the long-term health of the Charleston Harbor system.
4. To identify and implement mechanisms for future protection of habitats and populations.

Point Sources

1. To identify and characterize all point sources within the Charleston Harbor Drainage Basin.
2. To refine wasteload allocations and establish TMDL's for the Charleston Harbor estuary.
3. To work with municipal and industrial entities to better manage and, where possible, reduce point source loadings.

Dredge

1. To define future and dredged material and disposal requirements.
2. To assist responsible agencies with the selection of dredged material disposal areas.

Land Use

1. To locate and characterize existing land uses throughout the Charleston Harbor Drainage Basin.
2. To work with local governments to determine the likely areas of growth, and to predict land use conditions at build-out under existing zoning and land use regulations.
3. To determine the impacts of various land uses on the Charleston Harbor estuary.
4. To identify and promote land use management practices which reduce adverse impacts on the Charleston Harbor estuary.
5. To encourage local governments to actively manage land use for the maintenance and enhancement of the Charleston Harbor estuary.

Public Utilization

1. To document present levels of public utilization of the Charleston Harbor and its resources.
2. To enhance cultural, recreational, economic and public use of the estuary.
3. To increase public awareness and involvement in management of the Charleston Harbor system.

Data Management

1. To develop an accessible information management system which integrates data on the Charleston Harbor watershed pertinent to a watershed management plan.
2. To develop a GIS that satisfies CHP management needs and is compatible with state/local agency requirements,